

Estrangement of Meaning in a Wealth of Information

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Abstract

The expression offered by the editors as a prompt for thought (“observing technologies of observation”) is twisted here, briefly and provocatively, in a kind of radical way, intensifying both its informational (cybernetic) connotation and the intuition of a spiraling (psychotic) swirl. Reminiscences of “Von Foerster’s conjecture” (a theory of alienation in second-order observation once formulated by Jean-Pierre Dupuy) are used in order to interrogate the depletion of signification in a society that is now conceived of as a computational product. The problem of aesthetics, the essay concludes, becomes then crucial.

Keywords: Theory; cybernetics; information; meaning; psychosis.

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The intuition encapsulated in what Jean-Pierre Dupuy, philosopher and engineer, once called “Von Foerster’s conjecture” is not a remote academic rarity anymore; it permeates ordinary culture, having become an active ingredient in society. Brewed in the cauldron of so-called “second-order cybernetics” (and named after a mythical conversation with Heinz von Foerster, in a gathering hosted by Ivan Illich in 1976 in Cuernavaca, Mexico), this intuition concerns the estrangement of meaning in second-order observation — that is, in the observation of a system of observations (Dupuy, 1982 & 1992a; Koppel, Atlan, & Dupuy, 1987; see also Muniesa, 2018 & 2019). “Alienation” is the word Dupuy used to refer to this effect. Think of a system of individual agents making sense of what is going on with and between them (that is what is typically called a “society”), and then think of another agent trying to make sense of all of this — from its “outside” — as a whole (i.e., as a “system”). That is, taking a position of exteriority as a means to apprehend some kind of order therein (as a social scientist might do, for example, or might some other kind of modeler or engineer). Note, however, that this effect is also one that first-order participants may need to identify — this time from the “inside” of a society, so to speak — in order to recognize themselves as members of a meaningful totality. This would be their way of avoiding alienation in the above sense.¹

The conjecture can read as follows: the richer and more complex (and, therefore, more manifestly meaningful) first-order observations are, the harder it will be for a second-order observer to see some order there and to model what is going on; conversely, second-order meaningfulness will correspond to a depletion of sense for participating agents, finding themselves caught in a web of essentially trivial interactions, but which are fully readable from the overhead position. A most typical example: compare a handicraft workshop with an assembly line. Another telling illustration: compare a large bazaar, its stalls and alleys, its prices and voices, with an electronic auction where bids are posted anonymously and sorted by an algorithm. The first is the economist’s darkest nightmare. The second, a most beautiful dream of informational transparency (Muniesa, 2014). But, from the perspective of being there and recognizing, from the inside, the emergence of something akin to society (“self-transcendence” is Dupuy’s expression), the estrangement effect shifts entirely. Alienation, then.²

The interpretive power of this way of putting things is, of course, debatable. There is surely something nastily robotic about this way of thinking — a symptom of a behavioristic obsession that is not uncommon in engineering (Muniesa, 2018). What is striking, though, is how illustrative it has become of a world in which “society” is now a computational product, in the time of the all-encompassing “social network” of the electronic platform industry. It is as if “Von Foerster’s conjecture” (and “second-order cybernetics” altogether) had become the default theory of society for the likes of Peter Thiel, Elon Musk, Mark Zuckerberg, or Sam Altman. A society of first-order observers wandering around in a rating-and-matching platform, “liking” and “unlik-

1. A direct expression of this “conjecture” is nowhere to be found in the published work of Von Foerster, certainly not in the work Dupuy refers his readers to (that being Von Foerster, 1981). There is, in the latter, a discussion of what an experimenter may learn from turning a “nontrivial” (probabilistic) machine into a “trivial” (deterministic) one, but nothing about “alienation” or similar. It is then safe to say that the idea is, entirely, Dupuy’s (even if it strongly resonates, indeed, with the notion of a systematic science of “observing systems” as formulated by Von Foerster). A personal account of the conversation (epiphany, rather) with Von Foerster is provided in the introduction to Dupuy (1982).
2. Illustrating this with reference to economics in general, and to markets in particular, follows Dupuy’s own path towards a critique of the paradoxes of economic rationality (Dupuy, 1992a & 1992b). It is there, in the order (and disorder) of the economic observation of economic reality, where Dupuy locates one of the prime troubles of modernity. For further explorations in this direction, see Izquierdo Martín (1996) and Muniesa (2000). For Dupuy’s most recent, prophetic take on the subject matter, see Dupuy (2012).

ing” information as they can, to the benefit of the business model of the second-order observer who controls the engine. A society reminiscent of the “machine dreams” Philip Mirowski once wrote about, a society abiding by a particular rule of information: one for which the string “qxvy/zzzj” would embody more information than, say, a word spelled with only four different letters, “Mississippi” (Mirowski, 2002, p. 72). It is not at all that cybernetics, whichever order it is, provides a clever key to the interpretation of society. It is that society has ended up adopting the shape cybernetics once imagined. And the result is basically deplorable.³

The advent of formal “social network analysis” in the last stretch of the last century was rightly hailed as a scientific breakthrough. Then, quite naturally, a cohort of brilliant contributors started mingling with information technology companies, selling ideas, or even maybe giving them away for free (Healy, 2015). Today, though, it seems that the most promising social science that one can imagine in that vein is the one that ought to be carried out by Google, Microsoft, Meta, or OpenAI directly, so to say, that is, with direct access to the stuff society has supposedly become. Where do social scientists themselves go when wanting to observe their very own network of observations? To Google Scholar, for example. This is computational sociology gone too far. This is Jean-François Lyotard’s insight fulfilled beyond expectation: the advent of an electronic science of society so busy with the implementation and valuation of said society (implemented to be valued, valued to be further implemented), that it ends up abandoning itself to exhaustion (Lyotard, 1979). It is also that of Anthony Giddens: the modernizing promise of reflexive expertise carrying out the disembedding of society without fully grasping the extent of its consequences (Giddens, 1990).⁴

A now almost forgotten tradition of “critical second-order cybernetics” had put this in more daunting terms (Muniesa, 2019). That tradition, specifically located in Spanish-speaking academic circles in the 1980s and 1990s, would expand, for example, the “alienation” component implied in Dupuy’s “Von Foerster’s conjecture” with a mixture of psychoanalysis and Marxist critique. This was principally located in the work of Jesús Ibáñez, a critical sociologist and mass consumption analyst. The expression “*revolución o muerte*” (“revolution or death”) was once used by Ibáñez in the context of the construction of what he would call a “theoretical concept of exploitation” (Ibáñez, 1983 & 2014). Not in the sense of the famous political dictum, but in properly cybernetic reference to a spiraling system that no first-order negative feedback device can control, and which is only approachable from a second-order angle: either through the extinction of the system (“death”) or through the emergence of a metasystem (“revolution”). For Ibáñez, that spiral would be none other than that of the valuation of capital, also called “value creation” in the jargon of the platform economy’s business model (Muniesa, 2017). With systemic exhaustion deriving from the spiraling process of valuation: society is hence made to be valued as the behavioral substrate that produces the information that is, in turn, fed into it.⁵

3. This type of critique, certainly not new, connects with a literature that sees in cybernetics and its various legacies not an intellectual insight for the interpretation of the world but, rather, a cultural movement that attempts to shape it — with particular attention to damaging influence of Silicon Valley ideologues. See, for example, Daub (2020).

4. There is an intriguing paradox in the fact that the social science of social networks, being, as it is, so intrinsically concerned with the problem of embeddedness (in all its forms), ends up contributing so intensely to the form of alienation that the “Facebook syndrome” represents so well. What kind of sociology was Mark Zuckerberg exposed to at Harvard College when he got that fantastic “Facemash” idea of his? This intrigue goes beyond the anecdote. It is about a properly reflexive critique of the rise of the social network as a social technology. For an early attempt at theorizing this, see Izquierdo (2002).

5. That all this talk of exhaustion had a psychological correlate was patent in the psychoanalytical reading that

There are several ways in which all this may be put, and one that warrants interest here is the terminology of psychosis. That there is a problem with what the “information age”, or the “digital revolution”, have morphed into is made evident in standard critical accounts. Looking at this in terms of “reflexivity” or “virtuality” does not cover such concerns in full, however, especially if one is to find an expression of the breakout of meaning that “Von Foerster’s conjecture” encapsulates. Jean-Pierre Dupuy himself sees there, in conversation with psychiatrist Henri Grivois, a correspondence with the psychotic process (Dupuy, 1991; Grivois, 1991; Grivois & Dupuy, 1994). The estrangement of meaning prompted by the displacement of the order of observation provokes interpretive anxiety, if not interpretive panic. Paranoia, understood as a compulsion to decode a message that is now beyond reach, becomes a feature of the system. One needs, then, to confront here the problem of turning paranoia into a sociological concept, extracting it from the domain of psychiatry and clinical psychology. Undoubtedly, this is a productive task. Considering paranoia as some kind of a cultural syndrome is not about espousing a misguided metaphor, but about fully capturing the “agency panic” that is typically found, for example, in collective conspiratorial thought (Melley, 2000).⁶

Studies examining the paranoid element at work in contemporary mass culture tend to locate the crux of the problem in online life and algorithmic order (Birchall & Knight, 2022 & 2024). The political philosophy inherent in the digital medium prompts the emergence of cycles of reactivity in which participants find themselves trapped (Davies, 2024). The internalization of online feedback becomes the prime ingredient of the formation of a public self (Rosa-mond, 2023). Narratives of incantation are purposefully developed in industry milieu to justify second-order ascendancy (Nagy & Neff, 2024). Paranoia ends up undergoing a routine of gamification, with delusional processes becoming the symptoms of fraught attempts at restoring meaning (Chaudhary, 2022). Stereotypy becomes the main trait of the culture formed within the social platform. The latent content of the stereotypes hence produced cannot, however, be fully recovered with the dominant language of information (Muniesa, 2023). Part of the meaning is left stranded. The cybernetic dream does indeed produce monsters.⁷

A case in point is certainly offered by extravaganza of generative artificial intelligence. The fact that the term “hallucination” has become a de facto ingredient in the industry’s lingo is interesting: not because it purportedly “anthropomorphizes computers” (everyone is past that, hopefully), but because it lays bare the recognition of a psychotic element in the loop of information. If understood from the perspective of the conjecture examined here, hallucination in artificial intelligence may be perhaps best defined as the alienation of a second-order observation apparatus, in not having achieved the required trivialization of the dataset (“society”) it feeds on. In order to be sound, reliable and complete, the production of second-order meaning needs to cancel the possibility of first-order self-transcendence. In short, “qxvy/zz2j” ought to mean more that “Mississippi” (even if this sometimes requires making stuff up).⁸

Ibáñez would offer of the problem of alienation. See, for example, Ibáñez (1985).

6. In Muniesa (2024), this approach is adapted to the case of the “value panic” prompted by a radicalization of standard financial imagination. The main source of inspiration there is the take that Gilles Deleuze and Félix Guattari once offered in their *Capitalism and Schizophrenia*, which can be aptly read, at least in part, as a psychoanalytically-informed form of “critical second-order cybernetics” (Deleuze & Guattari, 1972 & 1980).
7. The notion of the “stereotype” can be reinterpreted in the light of the critical approach suggested here: say, as a residue produced by the estrangement of meaning. As suggested in Muniesa (2023), the psychoanalytical approach to the stereotype developed by Pierre Klossowski (1970) suits particularly well the examination of the latent signification of stereotypical forms found, abundantly, in internet culture.
8. There is a consistent conversation, within the field of computer science, on the spread and ambiguity of the

There is now something called “AI art” (imagery produced through machine learning instructions) that brings the estrangement of meaning to a most curious apex. The way this works is structurally linked to the intensification of the logic of the stereotype found in online culture. This process is based on the harvesting of online meaning, reinforcing the stereotypy that is already heavily marked in its source content (Meyer, 2025). The vernacular of “slop” (and the associated syndrome now aptly known as “brain rot”) appropriately characterizes the problem of the exhaustion of first-order signification. And this seems to be coupled with a most peculiar form of exhilaration and intoxication in second-order signification, judging in part from the aesthetic radicalization of some leading information engineers (e.g., Elon Musk’s silly posts in his own social platform). Some, such as queer writer Hiero Badge, have recently remarked that artificial intelligence represents the aesthetics of present-day fascism, comparable in that respect to Marinetti’s Futurism (see Badge, 2024). There is much truth in this.⁹

The immediate worldview that second-order ideologues seem to cling to today, in one way or another, is not necessarily fascism, however, at least not directly. It is transhumanism (Tailandier, 2021; Teixeira Pinto, 2019), which is not exactly the same thing (despite a shared eugenicist preoccupation and a similar taste for aristocratic rule). This is quite salient, and also of relevance for the perspective briefly sketched out here. The degradation of meaning in first-order observation is to be compensated (and the whole of society hence saved, so to speak) through some sort of an anthropological upgrading: the coming of a civilization in which “qxvy/zzzj” would be, at last, commonsense. That seems to be a fair way to represent the transhumanist project. On second thought, it may be the case that this is some kind of fascism anyway: a dark variety of the cybernetic maxim of “revolution or death.” Dark — or, rather, luminous if taken from a transhumanist, fascist perspective: the light of a superior race that ought to shine over the swamp of the old humanity, just to drain it (“Mississippi”). The sense of apocalyptic, eschatological disinhibition is almost complete. That sense of disinhibition is also there to repress, forcefully, the fact that all this means in fact more electricity, more heat, and more metal, instead of less (Fressoz, 2012; Latour, 2015).¹⁰

What is to be done? Is there any way out of this — any escape from a world modeled after “Von Foerster’s conjecture”, or after something comparable? The point about aesthetics is not otiose; it is crucial, somehow. But it concerns aesthetics not in the sense of how beautiful or ugly something is. It is aesthetics in the plainly political sense carried by the promise of enlightenment: that is, the “inward” expression (within an emancipated, sensible, desiring subject) of the structure and meaning of the composition of a common, collective world (with art, then, con-

terminology of “hallucination” (Maleki, Padmanabhan, & Dutta, 2024). The main conclusion, it seems, is that the expansion of artificial intelligence is inevitably accompanied by the expansion of the puzzle about what “hallucination” may mean.

9. There is a burgeoning conversation on the disturbing connections that there exist today between forms of radical reactionary, supremacist, authoritarian thought, on the one hand, and the culture of digital, futuristic, stereotypical, synthetic imagery, on the other hand. For a relevant starting point, see Haider (2017) and Teixeira Pinto (2019).
10. Bruno Latour’s late turn towards political theology was, in part, motivated by the need to develop his own take on the old problem of critical perplexity in the face of modernity’s headlong flight towards annihilation. He took the idea of “disinhibition” from historian of science Jean-Baptiste Fressoz (a reference to the paradoxes of the modernization drive, which aims at realizing technological risk, but also at normalizing it quite joyfully) in order to explore its religious origins: the end of times as some sort of an exhilarating spiritual calling (Fressoz, 2012; Latour, 2015). The palpable relevance of a psychoanalytical take (disinhibition is about “acting out” a repressed conflict) remains, however, unfortunately unaddressed. It makes sense, from the perspective suggested here, to consider “modern disinhibition” as a fetishistic attempt at coping with the repression of the consequences of modernity (and of second-order thrill).

sidered perhaps in terms of “the cunning of reason”). Aesthetic judgement is, indeed, perhaps the crucial space in which a viable alternative to fascism ought to be crafted (Alegre Zahonero, 2017). Aesthetic education, more largely, is the space in which the conflicts over how to produce meaning are dealt with. When its production is controlled by platform entrepreneurship, ideals of freedom, democracy, solidarity and emancipation adopt the language of the computational medium: impulse, reaction, acclaim, “likes” and “unlikes”, buttons and logins — a form of triviality evolving into a form of anxiety. It is perhaps out of this anxiety that an immanent critique of the language of information can work as an aesthetic response (Muniesa, 2023), one that distorts and expands, by way of resistance from within, the latent meaning inherent in the medium — as the “paranoid-critical method” of Dalí’s Surrealism aimed at doing in the midst of the fascist syndrome of the past century (Greeley, 2001).¹¹

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11. The proposal offered in Muniesa (2023) is about recognizing in a number of contemporary artistic engagements with the technological medium of mass information the potentials of the paranoid-critical method (Dalí, 1978) — that is, an “exploitation” of the paranoid potentials of the stereotype, intensifying the echoes of the uncontrollable content that the stereotype aims at controlling.

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